

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IT 03/00106

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B21K1/68 B21K21/00 B21J9/02 B21K27/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B21K B21J B21D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 759 080 A (SUGAHARA N ET AL) 18 September 1973 (1973-09-18) the whole document	1,2,16
A	US 2 871 492 A (VINCENT SCIULLO CHARLES) 3 February 1959 (1959-02-03) column 2, line 34 -column 4, line 75; figures 8-13	1,2,6, 10,12, 16,17
A	US 2002/005078 A1 (KRAUSE JEFFERY) 17 January 2002 (2002-01-17) page 2, paragraph 19 - paragraph 28; figures 8-12	1,2
	--- -/--	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

2 July 2003

Date of mailing of the international search report

15/07/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5816 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040. Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Ritter, F

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IT 03/00106

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 713 472 A (WATERBURY FARREL FOUNDRY CO) 11 August 1954 (1954-08-11) page 2, line 97 -page 4, line 49; figures 7-12 -----	1,2
A	US 2 832 973 A (MACDONALD RODERIC A) 6 May 1958 (1958-05-06) the whole document -----	1,2
A	US 4 048 825 A (DASTRUP JOHN BURKE ET AL) 20 September 1977 (1977-09-20) figure 1 -----	7,9

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IT 03/00106

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 3759080	A	18-09-1973	JP 51047659 B DE 2228986 A1	16-12-1976 21-12-1972
US 2871492	A	03-02-1959	NONE	
US 2002005078	A1	17-01-2002	US 6293164 B1 EP 1065131 A2 JP 2001071090 A	25-09-2001 03-01-2001 21-03-2001
GB 713472	A	11-08-1954	DE 944100 C	07-06-1956
US 2832973	A	06-05-1958	NONE	
US 4048825	A	20-09-1977	NONE	